



B-410 Bass Guitar System

- Newly designed 10-inch speakers provide solid low-end punch and extended high-frequency response for great clarity.
- Use either full range or biamped as a mid-high enclosure.
- 600-watt long-term and 2,400-watt short-term power capacity.
- Roadworthy enclosure with metal corners and grille, and heavy-duty handles.

SPECIFICATIONS

Usable Frequency Response:

36-8,000 Hz

Sensitivity, 1 Watt at 1 Meter:

104.5 dB

Long-Term ("rms") Power-Handling Capacity:

600 watts

Transducer Complement:

Four specially designed, 10-inch cone loudspeakers

Nominal Impedance:

8 ohms

Input Connectors:

Two Neutrik Speakon™ NL4MPR-V connectors, in parallel

Enclosure Material:

Black carpet-covered Roadwood™

Dimensions,

Height:

64.8 cm (25.5 in.)

Width:

61.6 cm (24.25 in.)

Depth:

48.3 cm (19 in.)

Net Weight:

43.6 kg (96 lb)

Shipping Weight:

47.4 kg (105 lb)

DESCRIPTION

The Electro-Voice B-410 is a premium speaker system for bass guitar. This system is ideal for the bass guitarist who needs to hear all of the tones and nuances that his four-string bass is capable of producing, at high stage levels. The B-410 is suitable for full-range reproduction of conventional 4-string basses and basses with a "dropped-D" tuning (or low-D extension). This system is capable of thunderous output levels. The B-410 is perfect for the modern bassist who

may be incorporating "pop" and "slap" techniques into his/her playing.

The extended high-frequency response and the tight low-frequency response combine to provide exceptional clarity and punch. The sound and feel of this system also make it ideal for use as the high-frequency section in a concert scale biamped system. The B-410 would complement any high-output, low-frequency enclosure to form a state-of-the-art biamped bass guitar system.

The unusually wide frequency response of this system is achieved without the use of a tweeter and the crossover it would require. This design principle provides an inherently more reliable system.

If you are used to conventional speakers, some adjustment to your amplifier's tone controls will probably be desired. Experimentation is the key to finding the sound that you are looking for.

The speakers in this system have been completely redesigned and "voiced" specifically for modern bass players. The magnet structure has been newly designed to provide both high energy and relatively light weight. The voice coil is constructed of a single layer of flat aluminum wire for light weight, low inductance and high efficiency. (Remember, light weight in a speaker's moving system and high efficiency in the magnet structure generally translate to good high-frequency and transient response.) The most visually obvious change to these speakers is in the cone and dust dome. It is a new composite material made of paper fibers with mica and epoxy added for remarkable stiffness. The end result is a speaker with a very light-weight moving system and a bright and open sound. Like most professional Electro-Voice speakers,

these speakers utilize extremely rugged cast aluminum frames to ensure long-term mechanical integrity.

The B-410 enclosure is made from Roadwood™—a structural material made of layered and selectively oriented hardwood strands. Roadwood is dimensionally stable, water resistant and free from voids. All panel joints are dado cut to ensure that your speaker system sounds just as good after the tour as before.

The covering is densely woven, abuse-resistant, black carpeting. Hardware appointments include large, heavy-duty, metal corner protectors, recessed handles and large, rubber feet. In addition, sockets have been installed on the enclosure bottom for the use of removable casters. Casters are not included with your system and must be purchased separately—consult your Electro-Voice dealer.

The B-410 input panel incorporates two Neutrik Speakon™ NL4MPR-V connectors. The mating connector is the Neutrik Speakon NL4FC. One NL4FC connector is supplied with the B-410. These connectors were chosen because they are rugged, locking, easily wired, sealed and relatively inexpensive when compared to other professional connectors. Speakon connectors are rated for very high current, much more than this system should ever encounter. The connector's continuous current rating is 30 amps, many times that of 1/4-inch connectors. Speakon connectors also have a much lower contact resistance than even the highest quality 1/4-inch connectors. B-410 and Speakon wiring diagrams are shown on the back of this data sheet (see Figure 1). Notice that in "normal" operation, pins 2+ and 2- would not be used, but they are "linked" to facilitate customized wiring schemes.

POWER HANDLING TEST

To our knowledge, Electro-Voice was the first U.S. manufacturer to develop and publish a power test closely related to real-life conditions. First, we use a random noise input signal because it contains many frequencies simultaneously, just like real voice or instrument program. Second, our signal contains more energy at extremely high and low frequencies than typical actual program, adding an extra measure of reliability. Third, the test signal includes not only the overall "long-term average" or "continuous" level—which our ears interpret as loudness—but also short-duration peaks which are many times higher than the average, just like actual program. The long-term average level stresses the speaker thermally (heat). The instantaneous peaks test mechanical reliability (cone and diaphragm excursion). Note that the sine-wave test signals sometimes used have a much less demanding peak value relative to their average level. In actual use, long-term average levels exist from several seconds on up, but we apply the long-term average for eight hours, adding another extra measure of reliability.

Specifically, the B-410 is designed to withstand the power test described in EIA Standard RS-426A. The EIA test spectrum is applied for eight hours. To obtain the spectrum, the output of a white noise generator (white noise is a particular type of random noise with equal energy per bandwidth in Hz) is fed to a shaping filter with 6-dB-per-octave slopes below 40 Hz and above 318 Hz. When measured with the usual constant-percentage analyzer (one-third octave), this shaping filter produces a spectrum whose 3-dB-down points are at 100 Hz and

1,200 Hz with a 3-dB-per-octave slope above 1,200 Hz. This shaped signal is sent to the power amplifier with the continuous power set at 600 watts into the EIA equivalent impedance (59.3 volts true rms). Amplifier clipping sets instantaneous peaks at 6 dB above the continuous power, or 2,400 watts peak (118.6 volts peak). This procedure provides a rigorous test of both thermal and mechanical failure modes.

WARRANTY (Limited)

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in

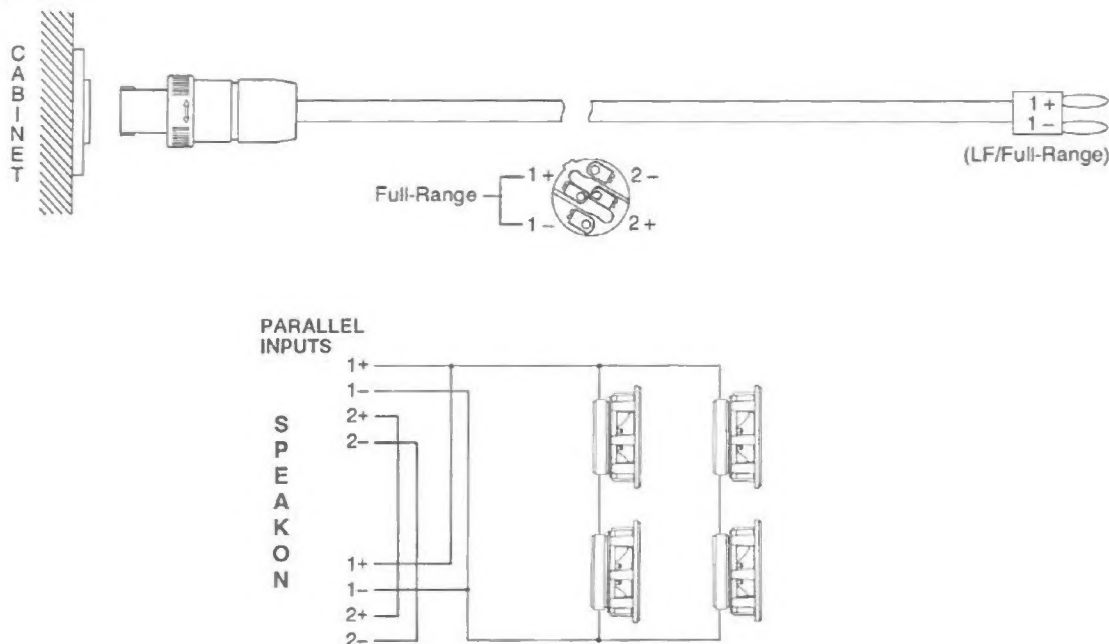
the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831) and/or Electro-Voice West, at 8234 Doe Avenue, Visalia, CA 93291 (209/651-7777). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Electro-Voice Speakers and Speaker Systems are guaranteed against malfunction due to defects in materials or workmanship for a period of five (5) years from the date of original purchase. The Limited Warranty does not apply to burned voice coils or malfunctions such as cone and/or coil damage resulting from improperly designed enclosures. Electro-Voice active electronics associated with the speaker systems are guaranteed for three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107.

Specifications subject to change without notice.

FIGURE 1 — Wiring Diagrams



ELECTRO-VOICE

a MARK IV company

600 Cecil Street, Buchanan, Michigan 49107

MANUFACTURING PLANTS AT ■ BUCHANAN, MI ■ NEWPORT, TN ■ SEVIERVILLE, TN ■ OKLAHOMA CITY, OK ■ GANANOQUE, ONT.
© Electro-Voice, Inc. 1992 ■ Litho in U.S.A.

Part Number 531994 — 9248